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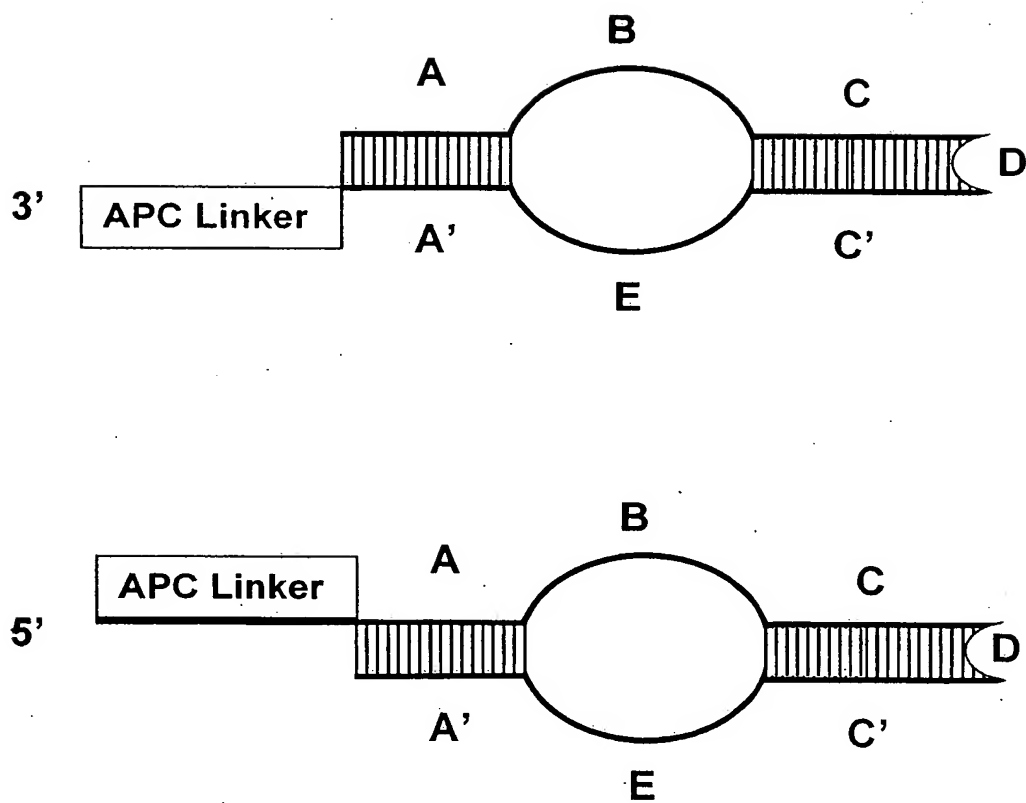


FIGURE 1

Double Stranded or Single Stranded DNA or RNA

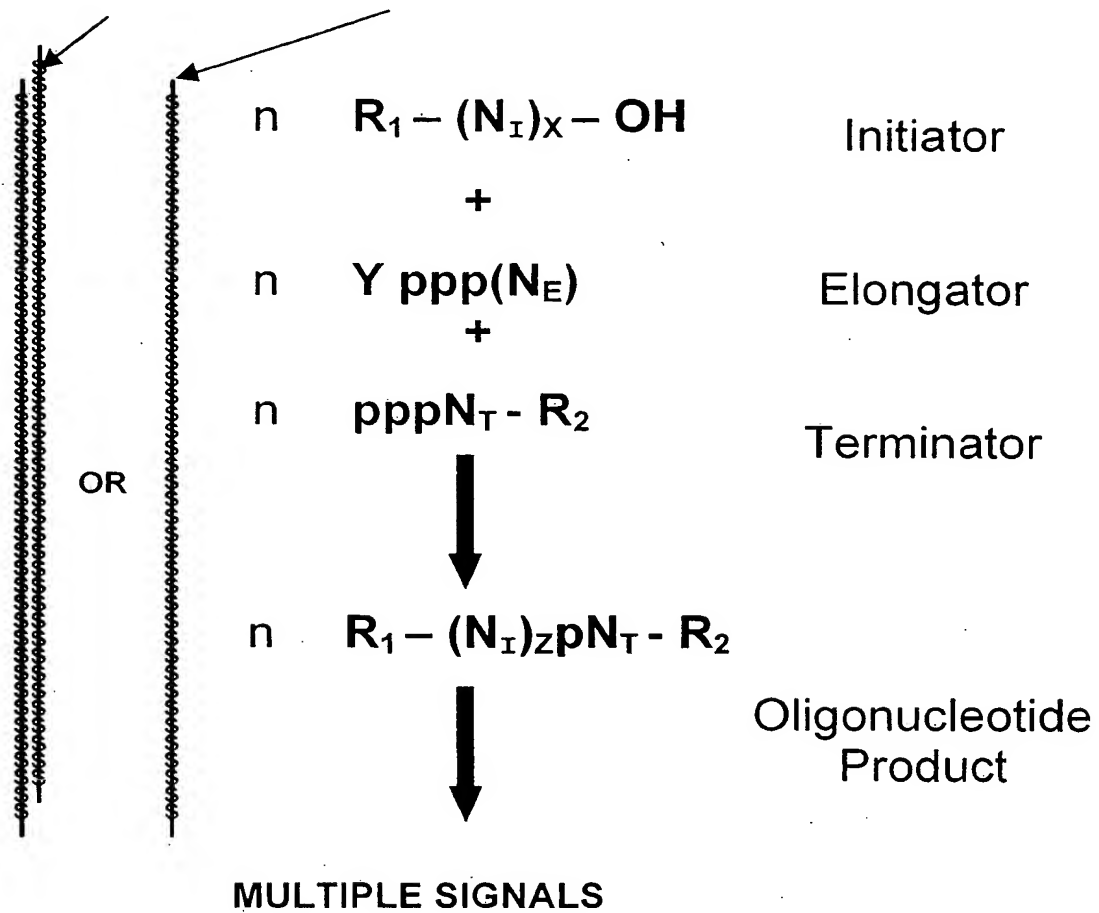


FIGURE 2

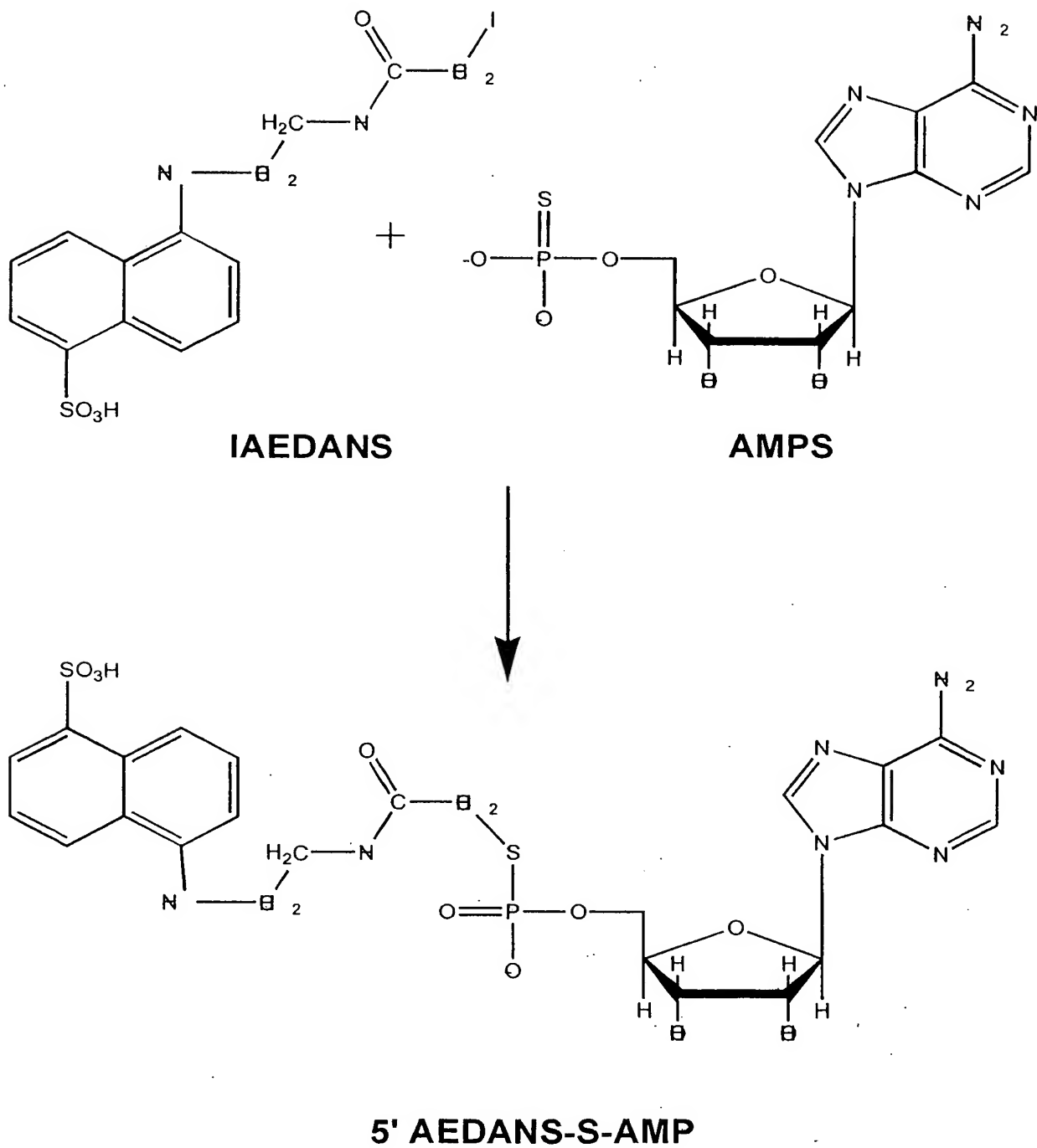
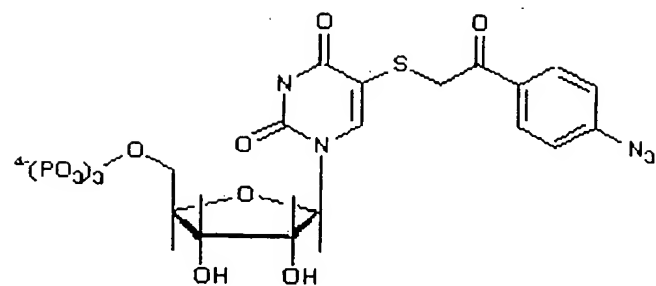
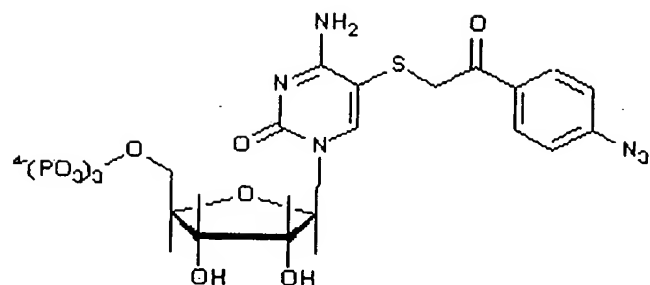


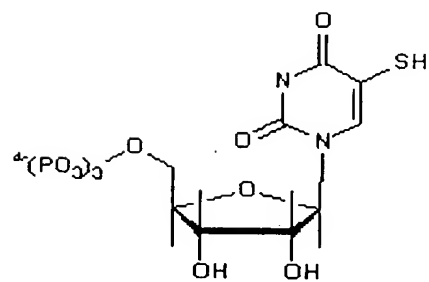
FIGURE 3



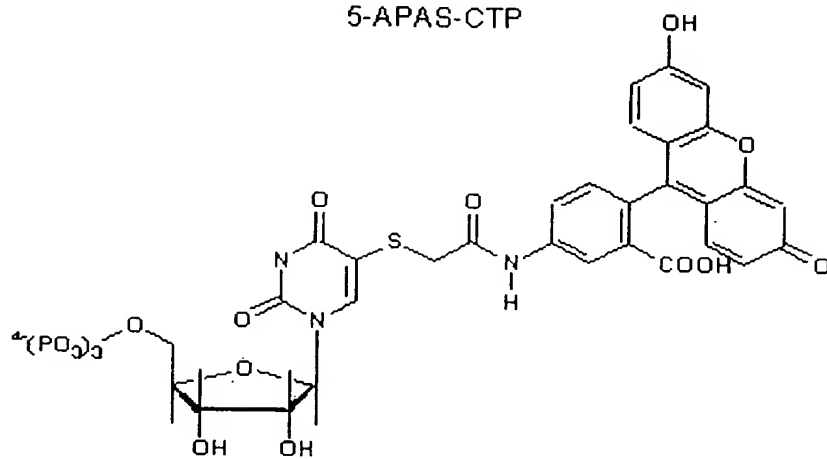
5-APAS-UTP



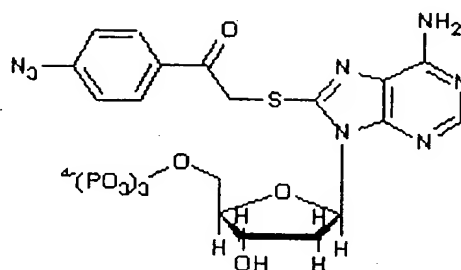
5-APAS-CTP



5-SH-UTP

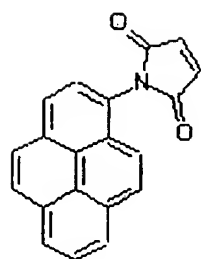


5-SF-UTP

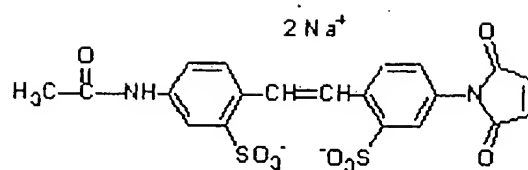


8-APAS-ATP

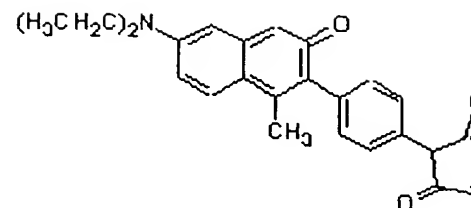
FIGURE 4



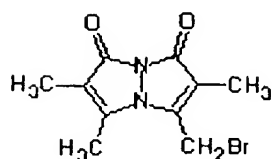
pyrene



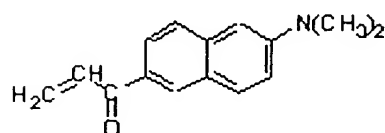
stilbene



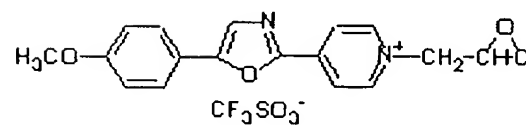
coumarine



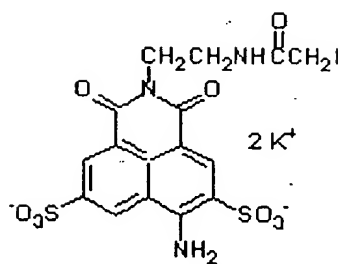
bimane



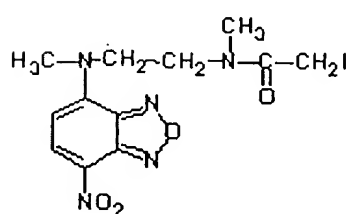
naphthalene



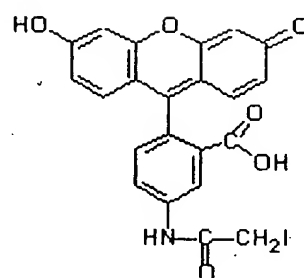
pyridyloxazole



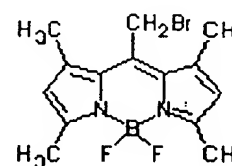
naphthalimide



NBD



fluorescein



BODIPYTM

FIGURE 5

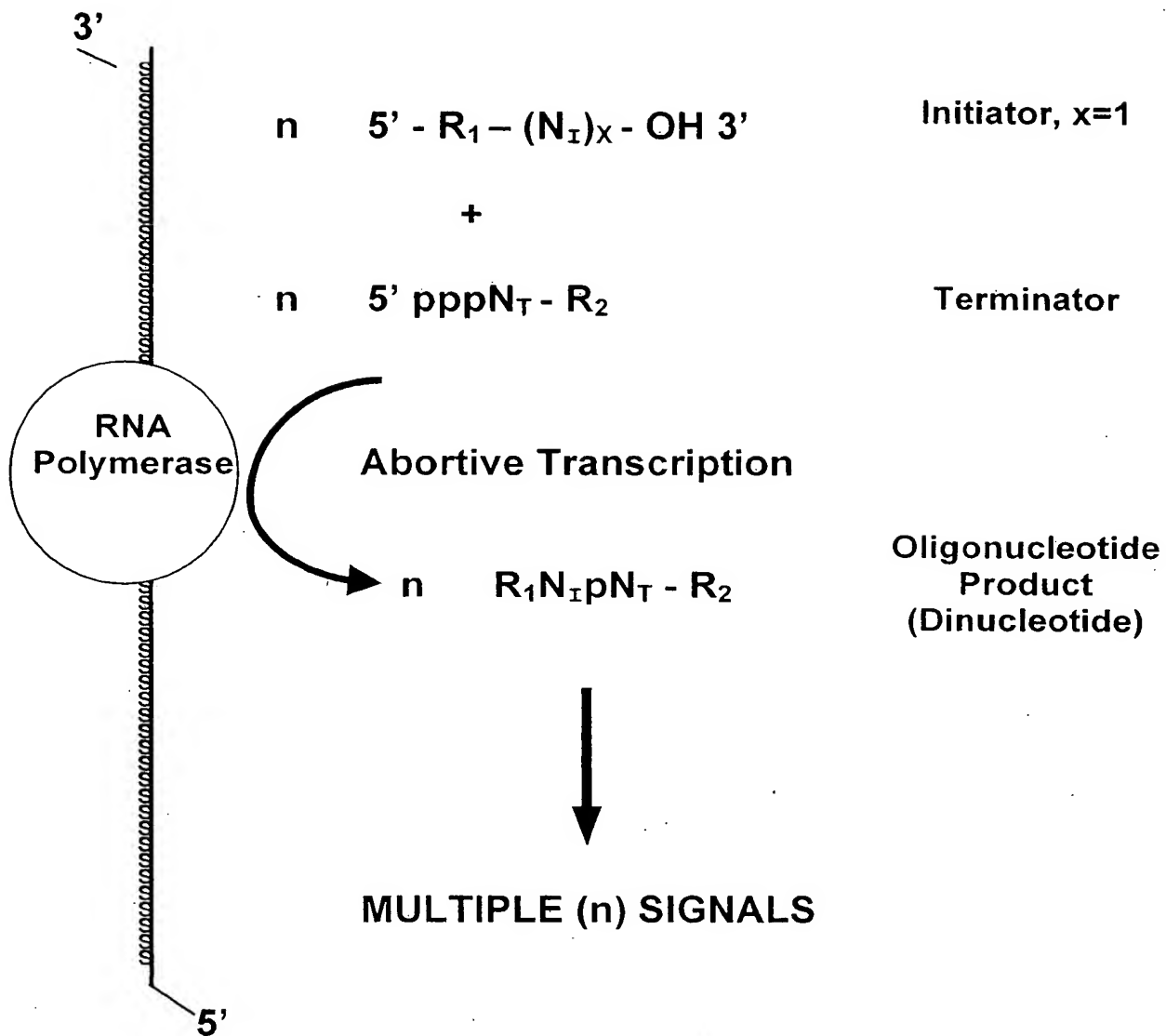


FIGURE 6

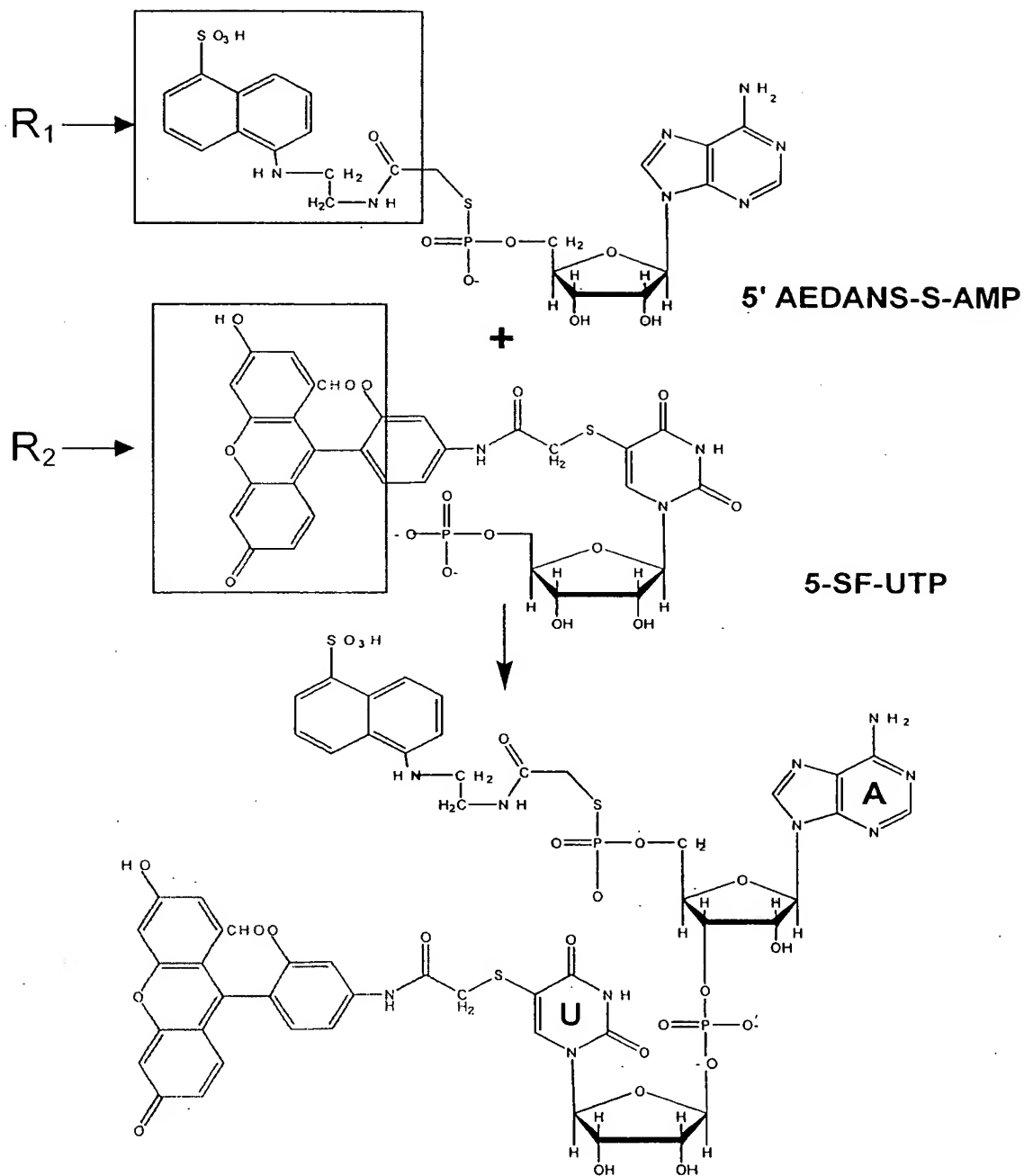


FIGURE 7

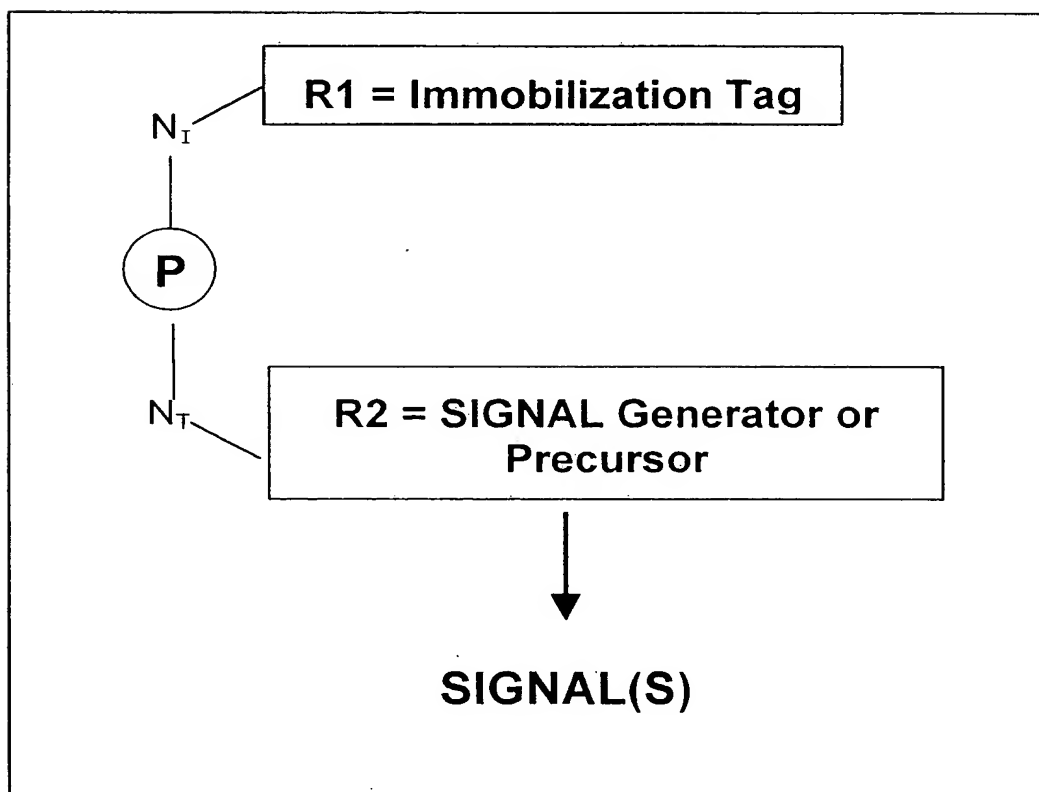


FIGURE 8

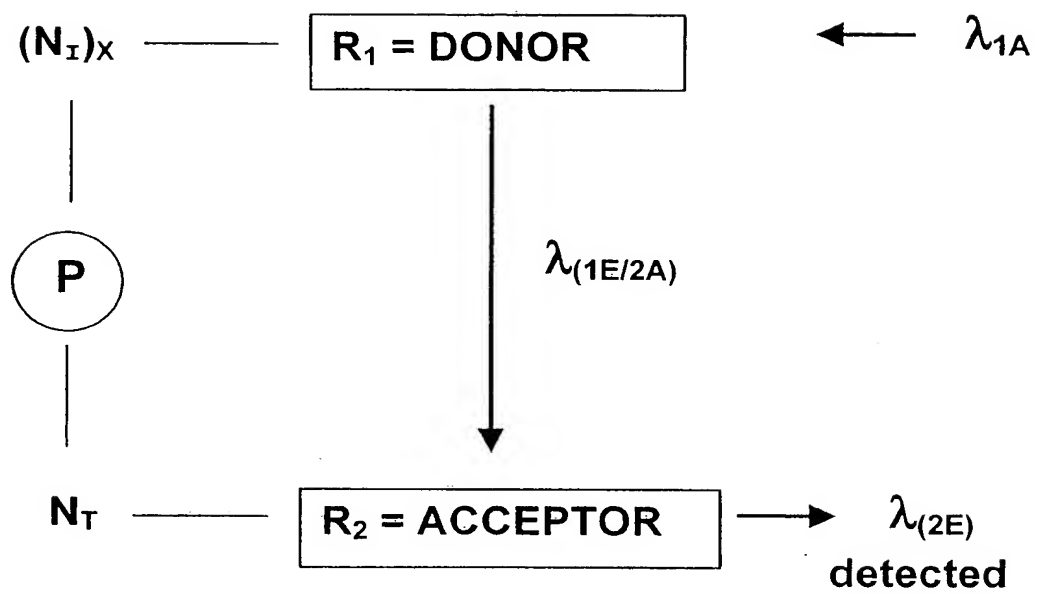


FIGURE 9

n $R_1N_1pN_2R_2-OH$

+

n $pppN_3R_3$



n $R_1N_1pN_2R_2pN_3R_3$

where N_3 is a terminator

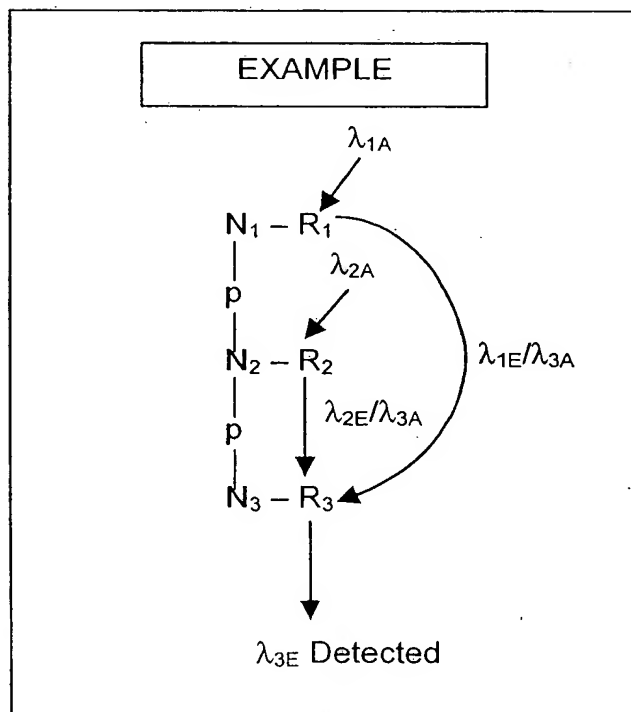


FIGURE 10

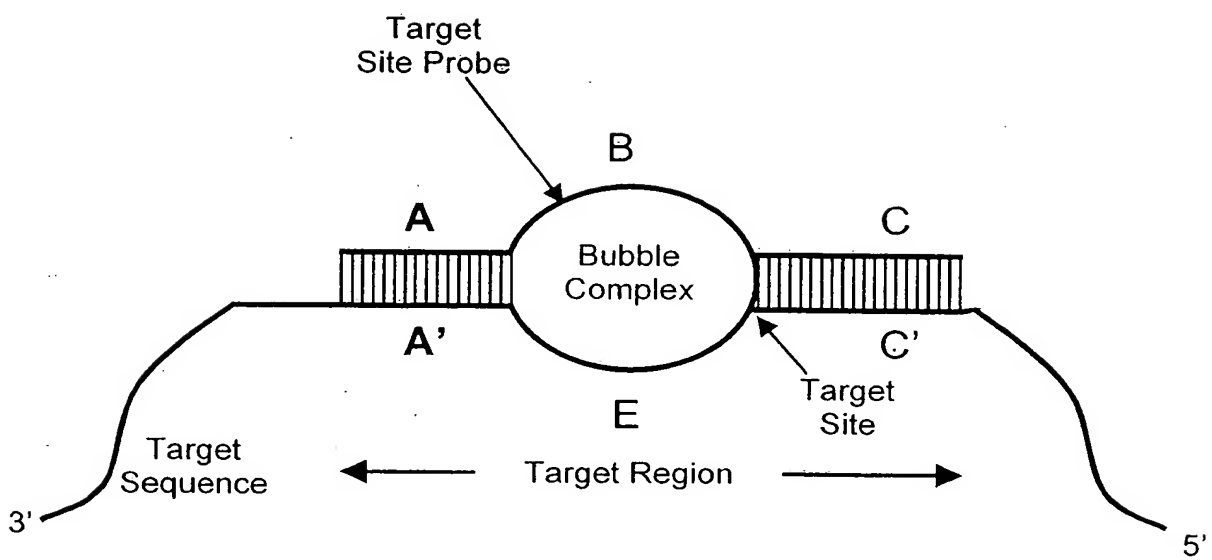


FIGURE 11

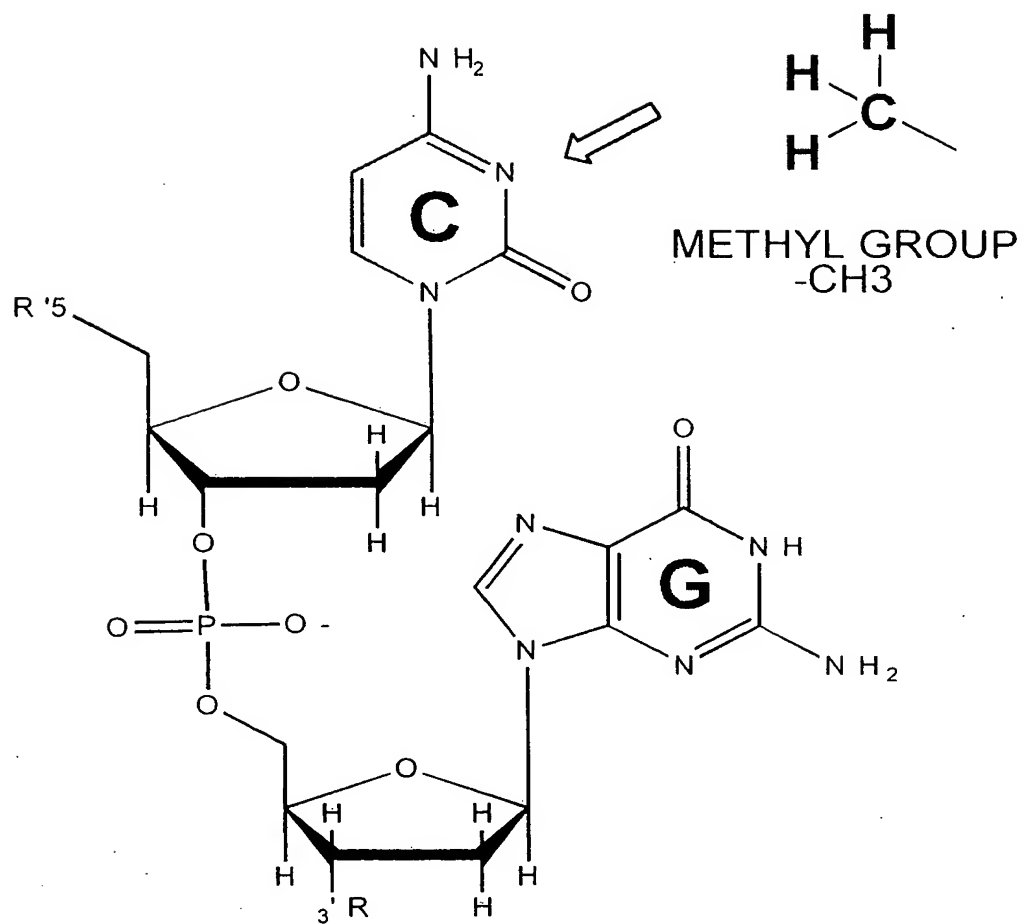


FIGURE 12

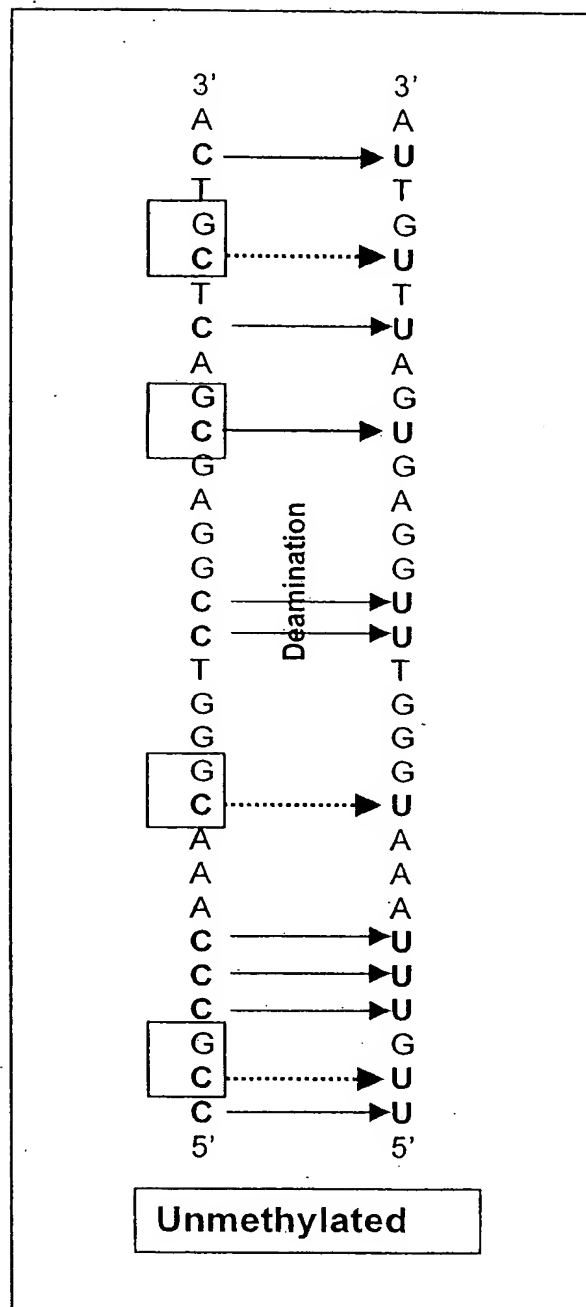
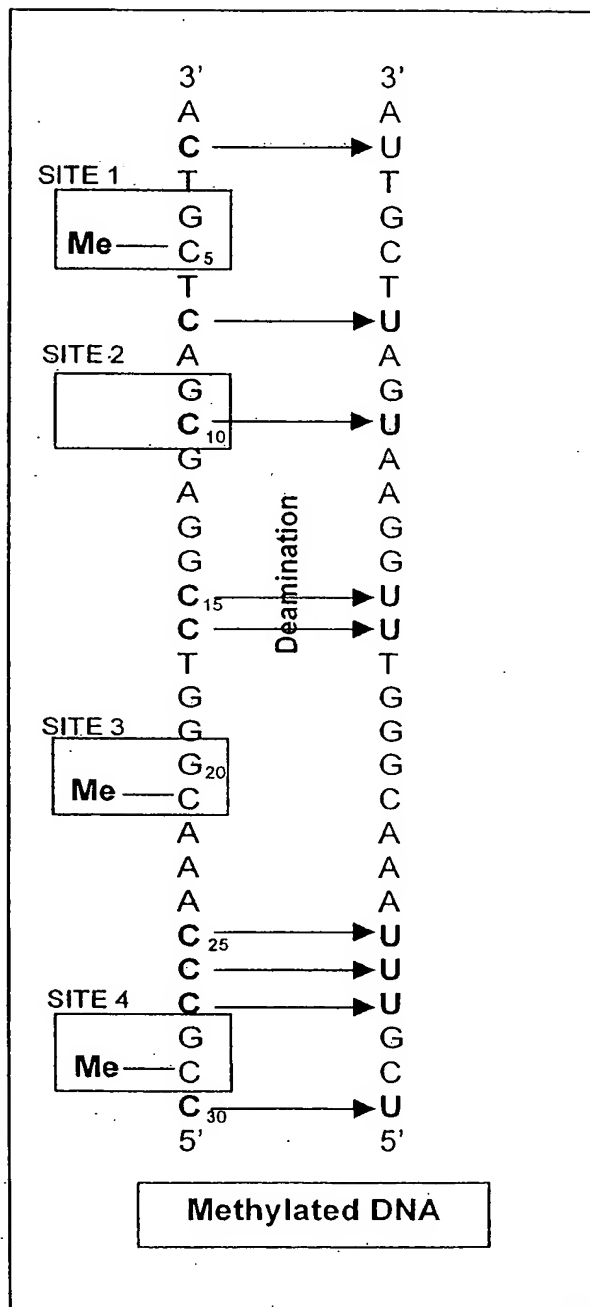


FIGURE 13

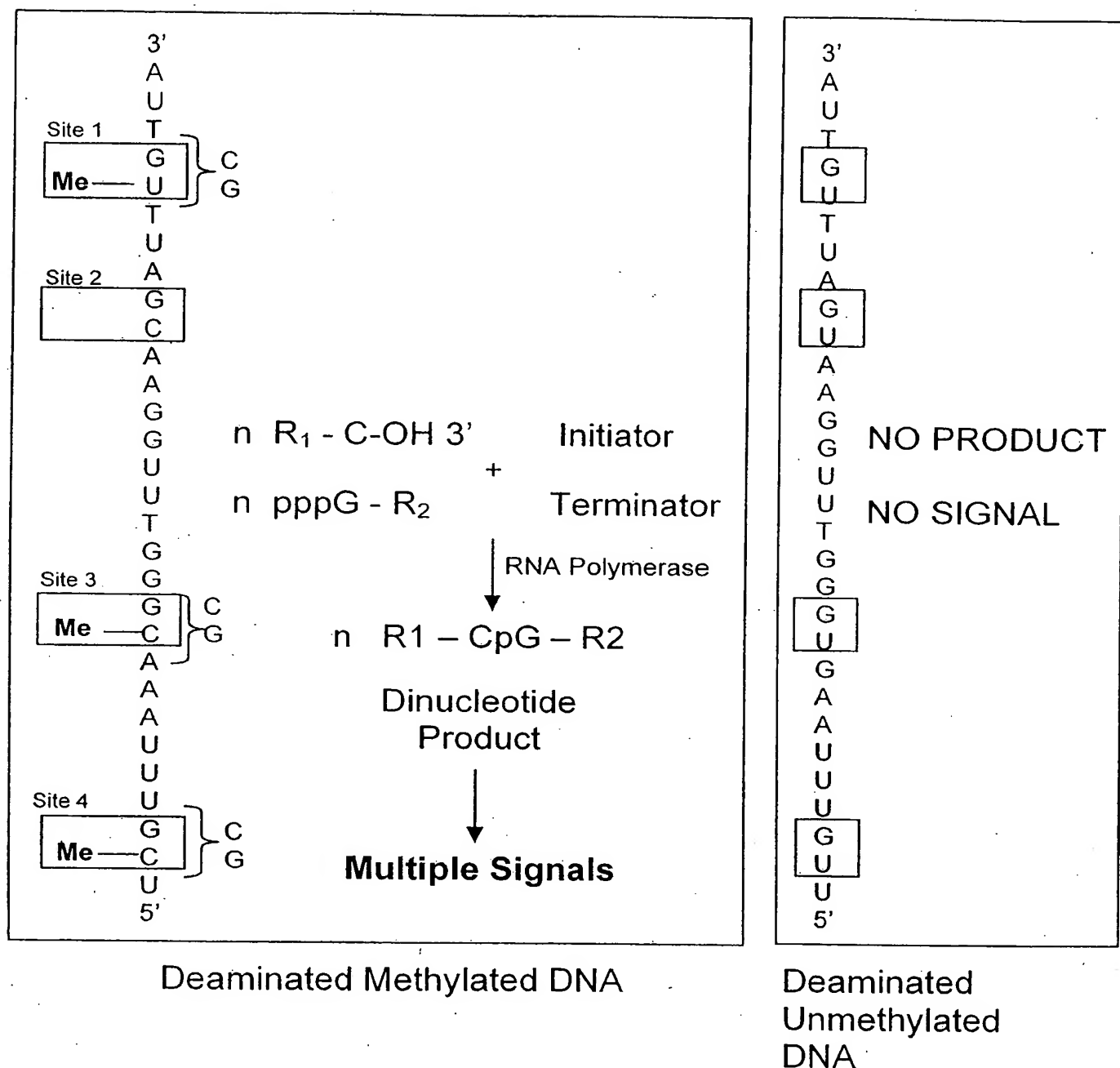


FIGURE 14

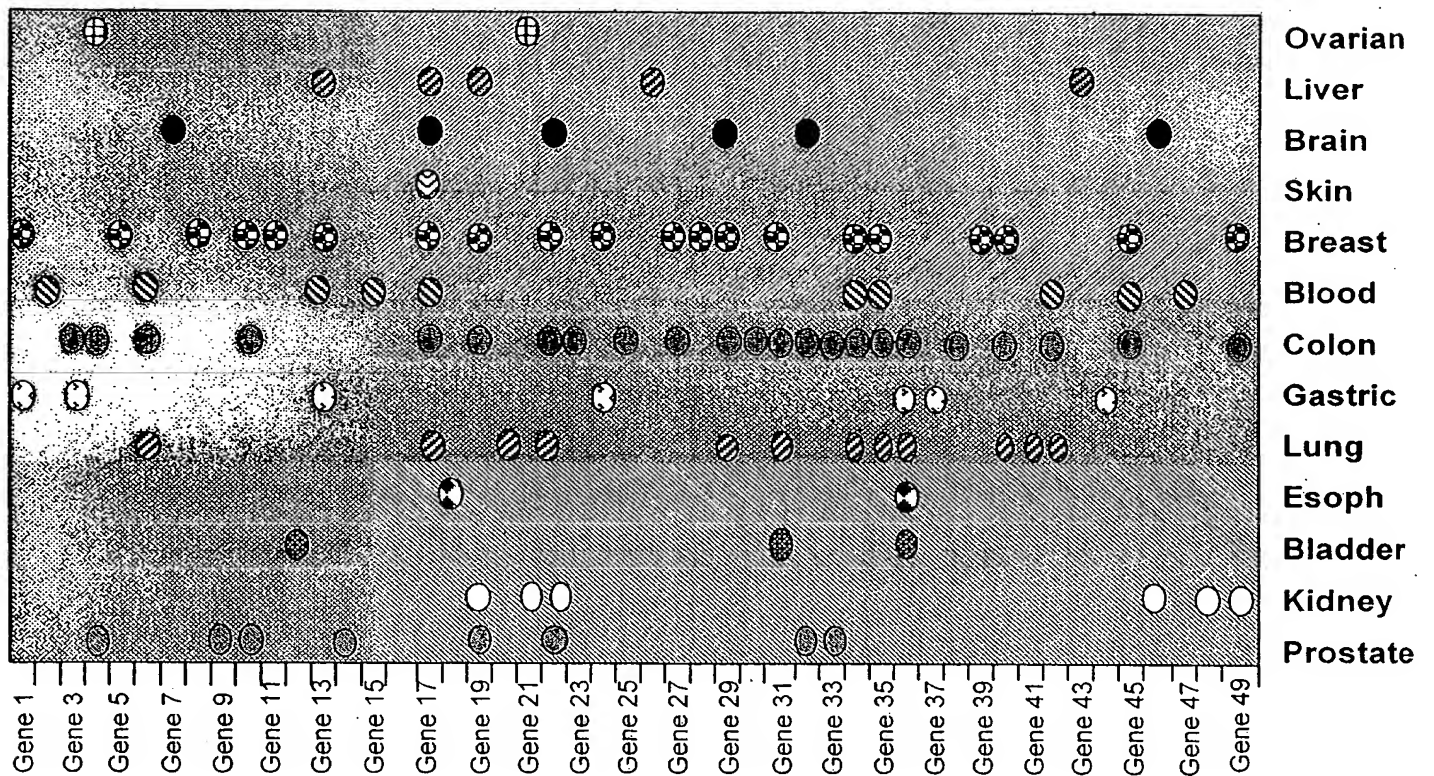


FIGURE 16

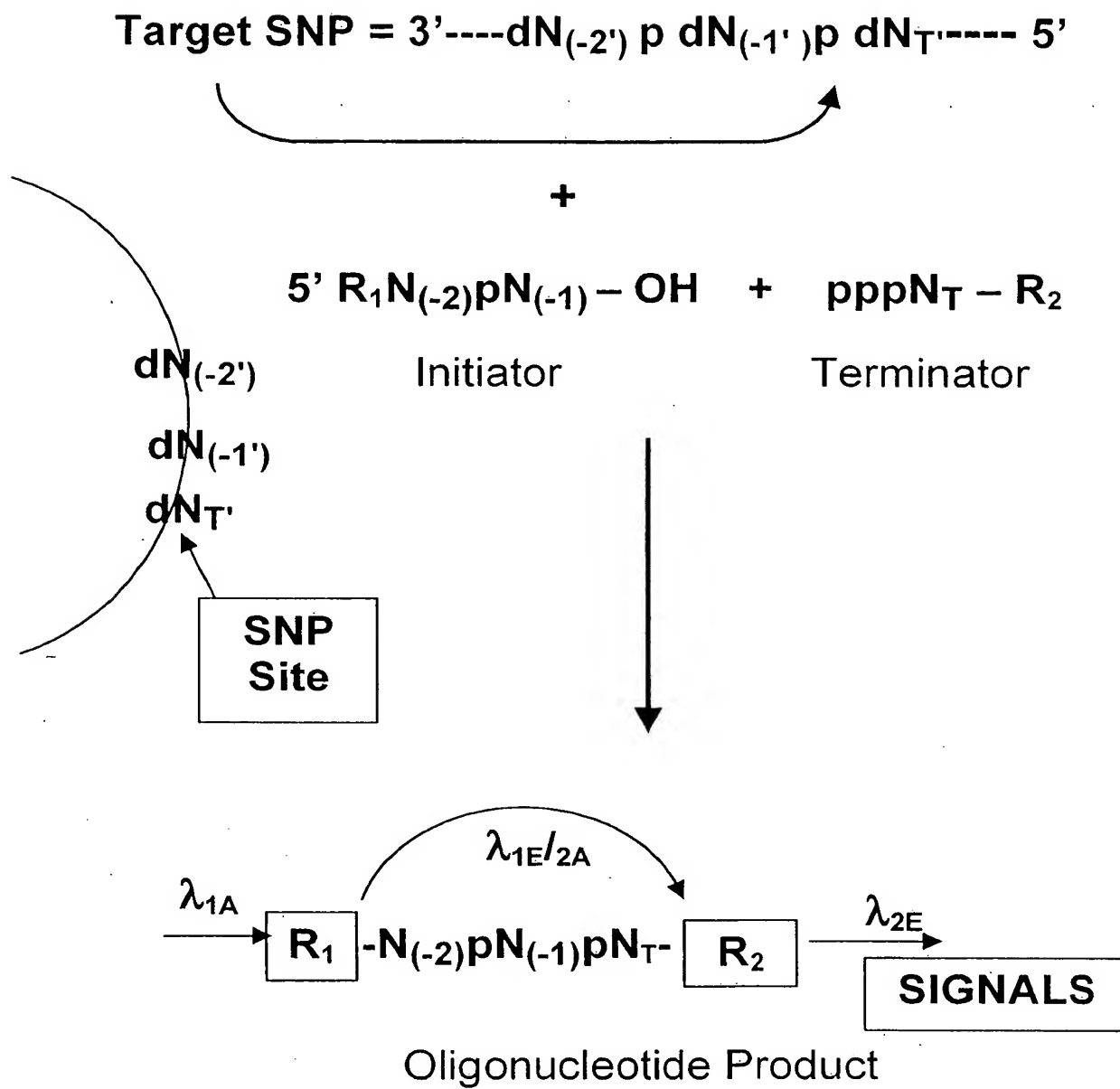


FIGURE 17

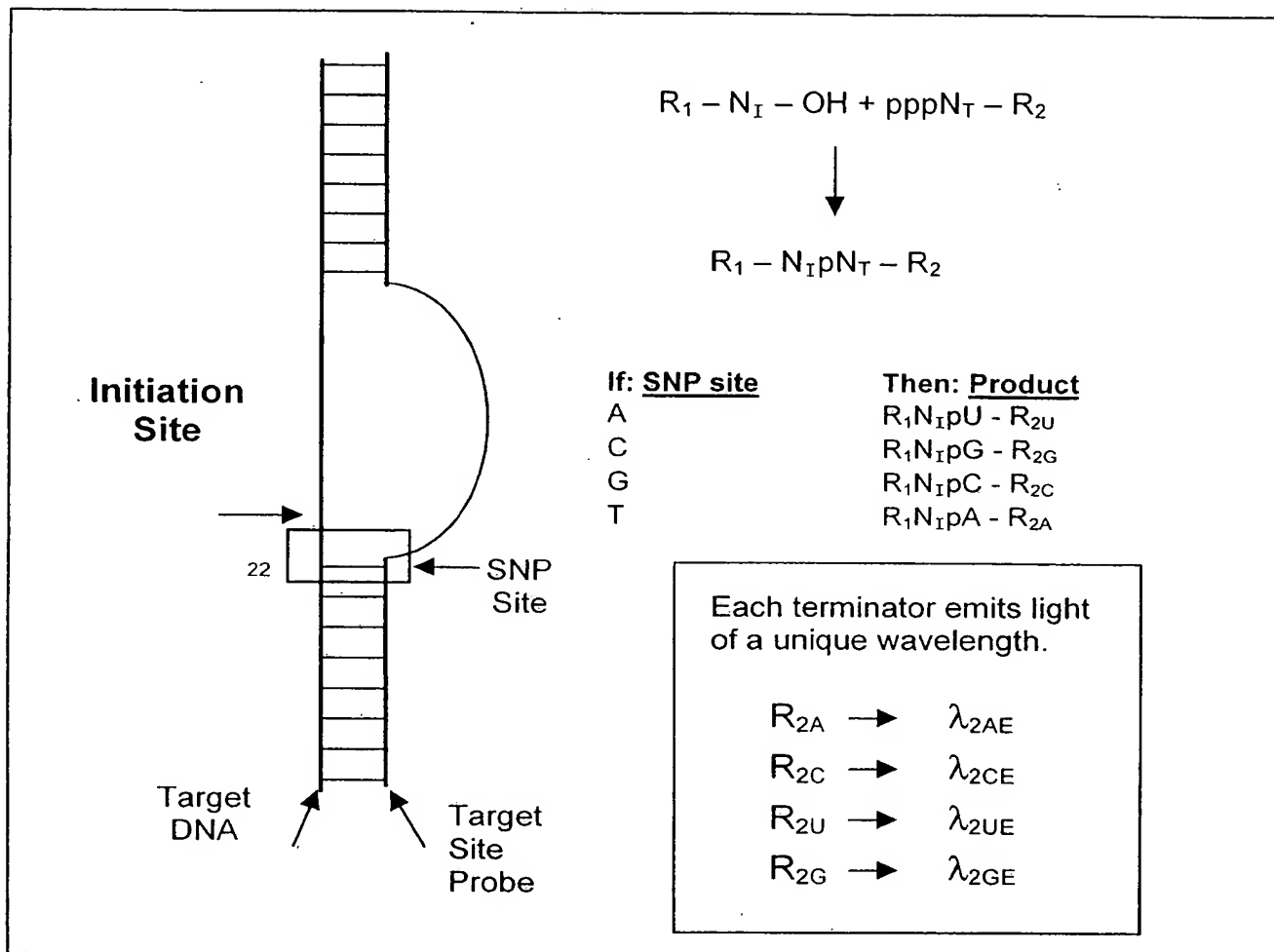


FIGURE 18

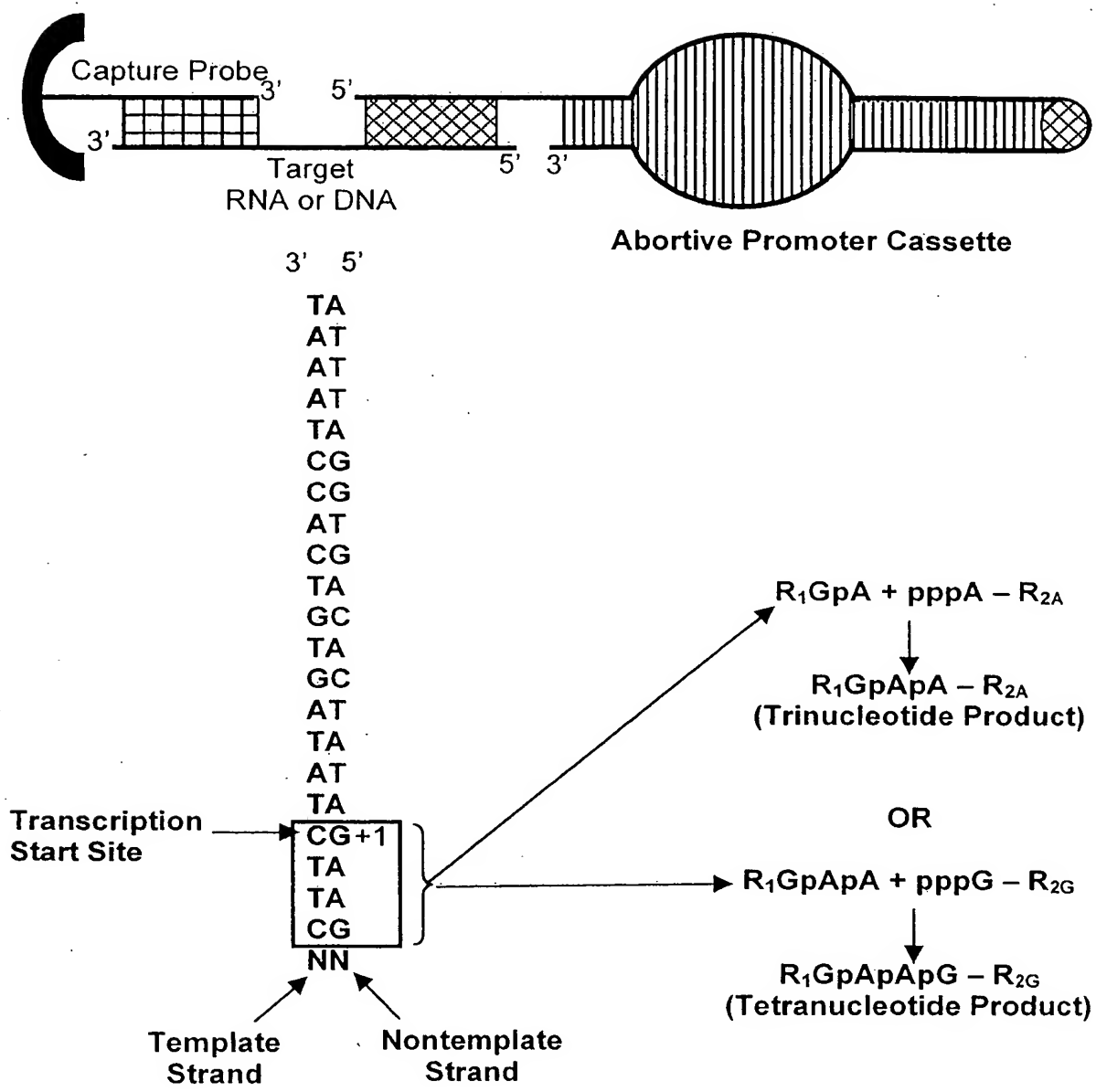


FIGURE 19

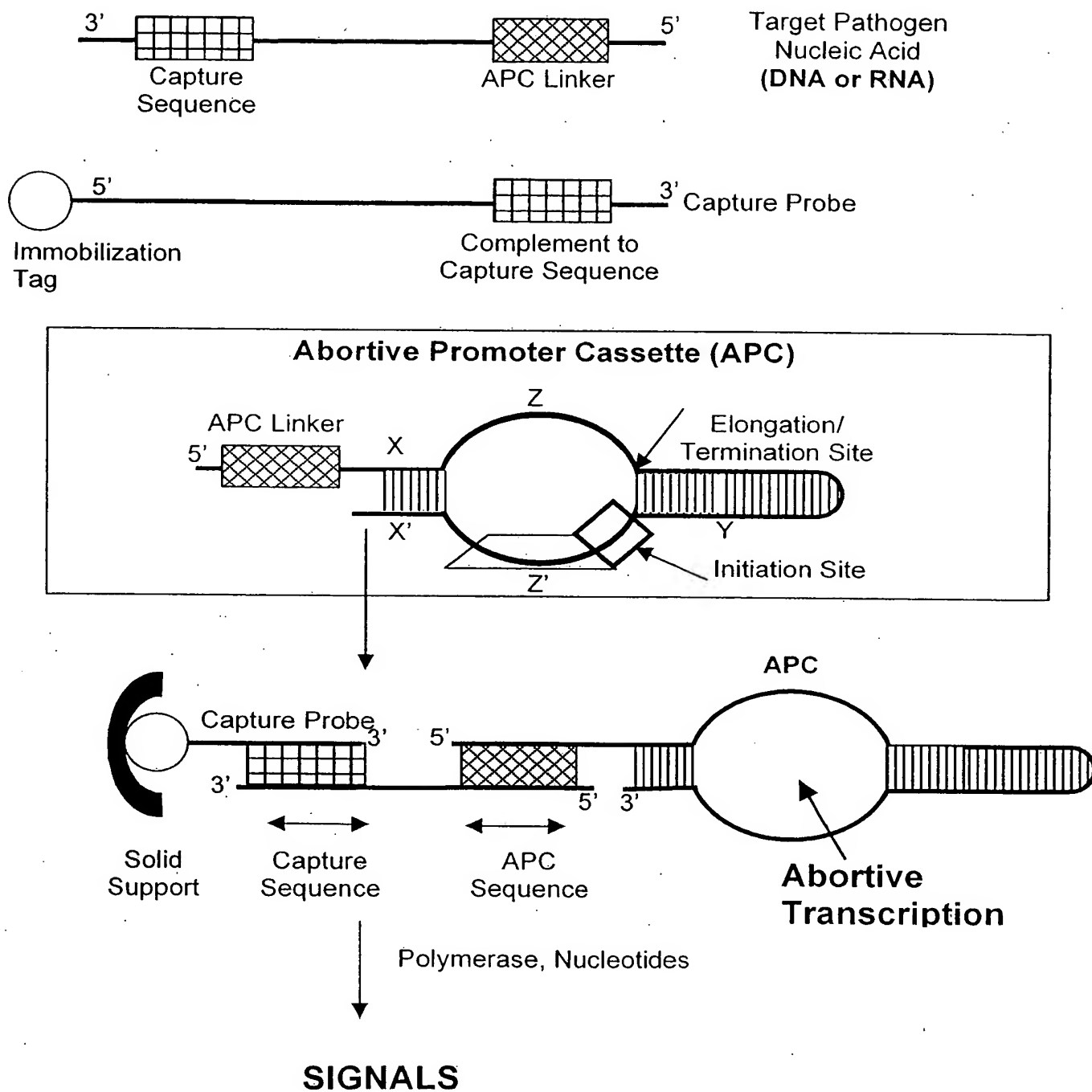


FIGURE 20

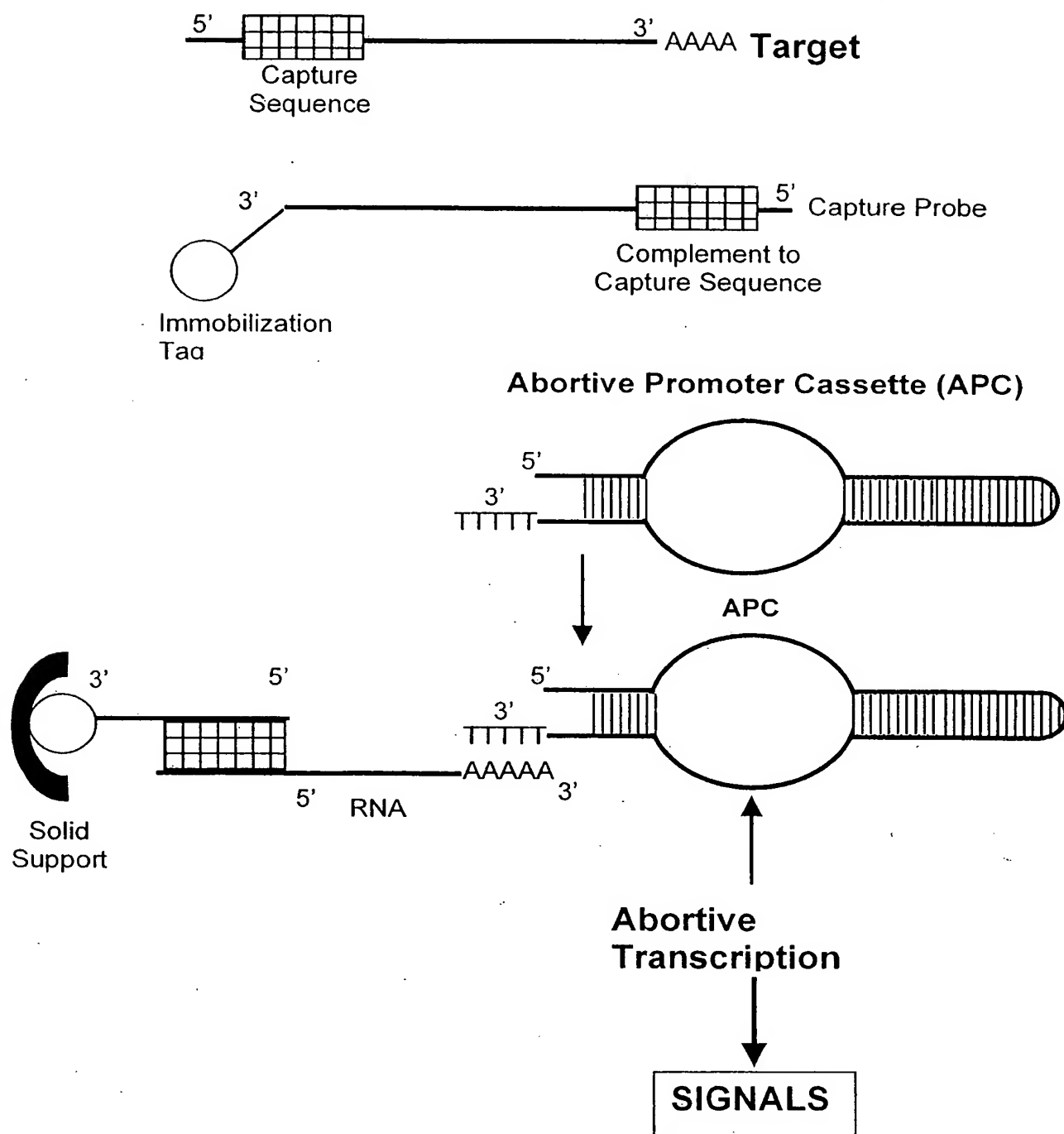


FIGURE 21

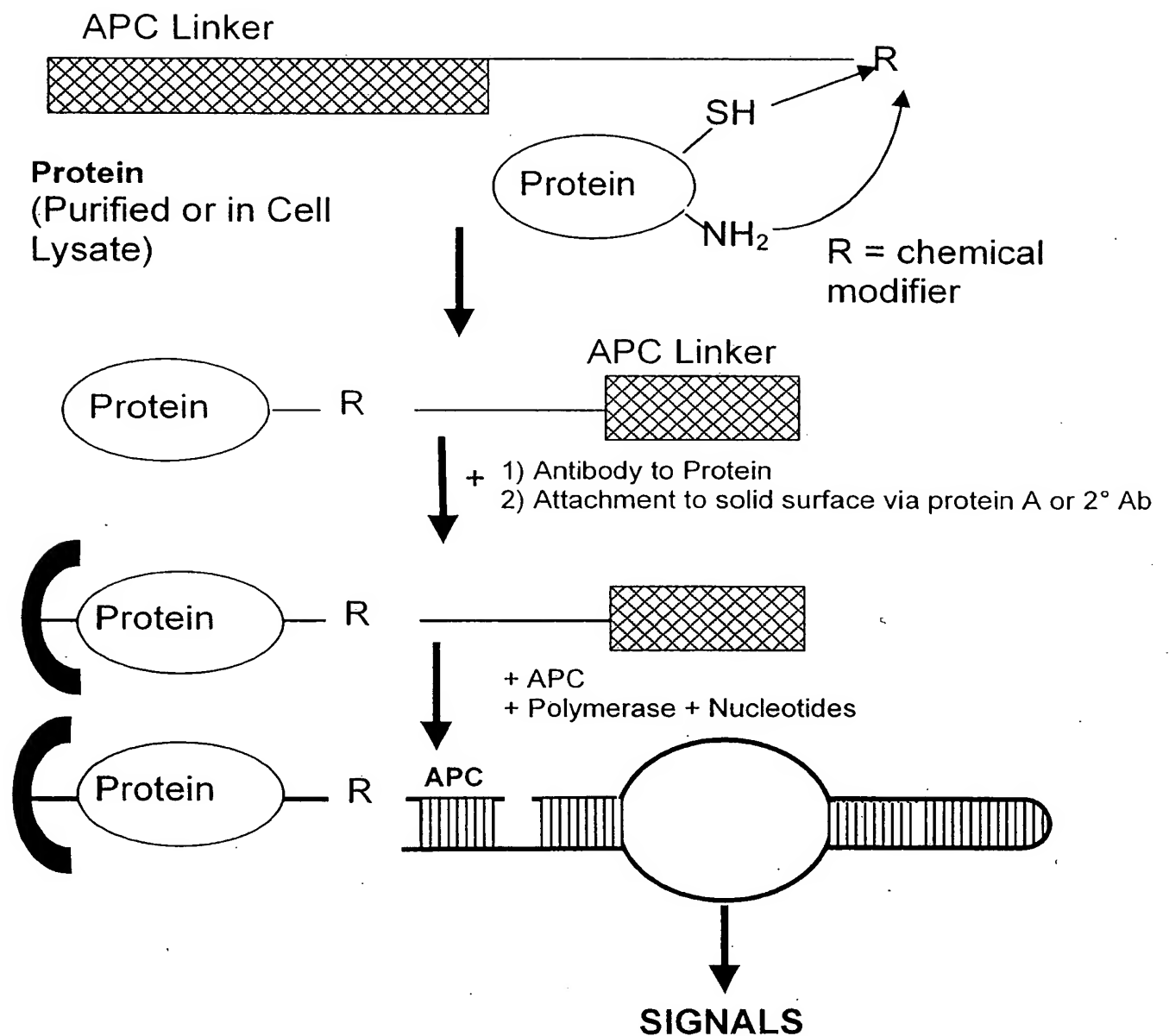


FIGURE 22

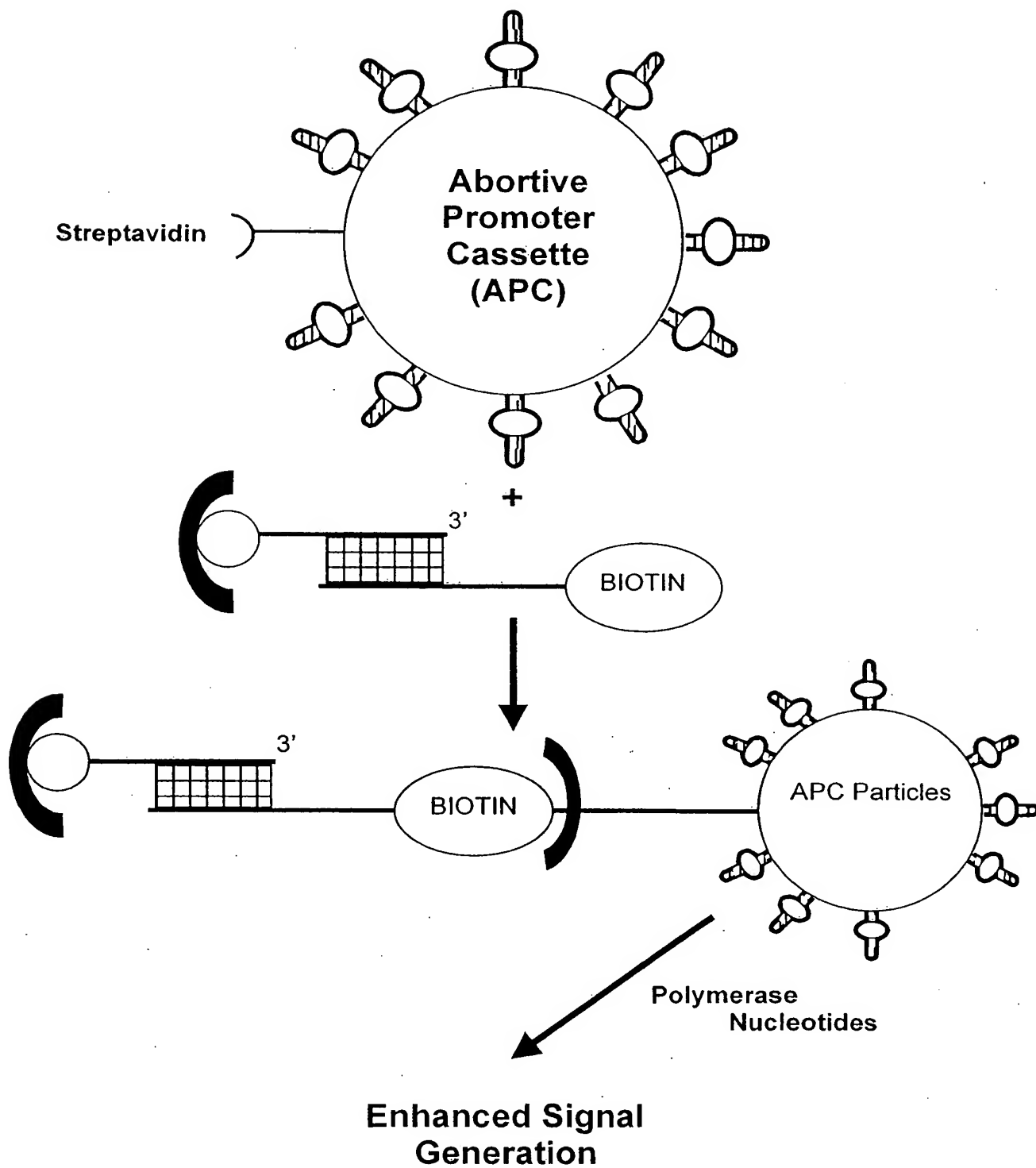


FIGURE 23

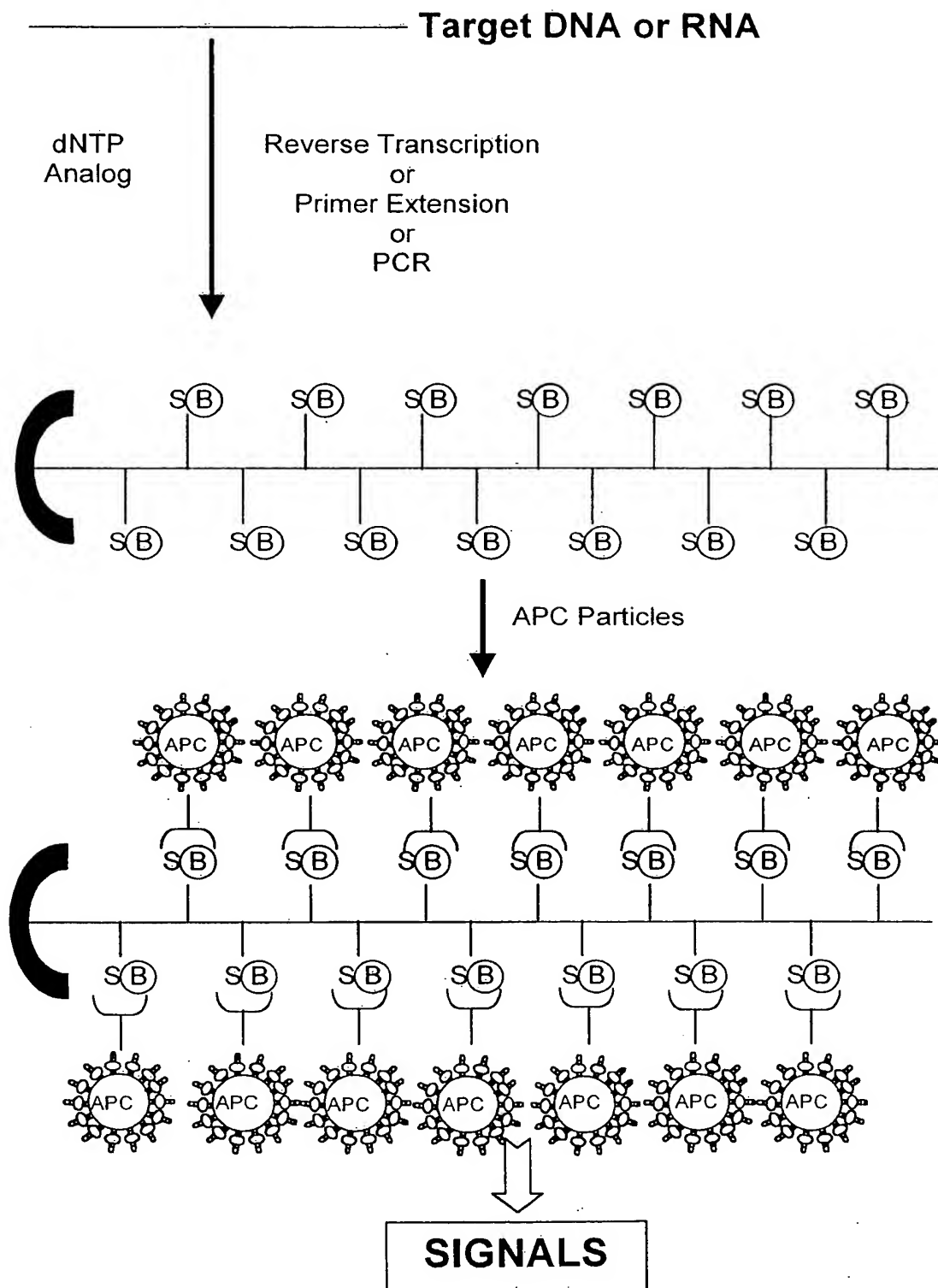


FIGURE 24

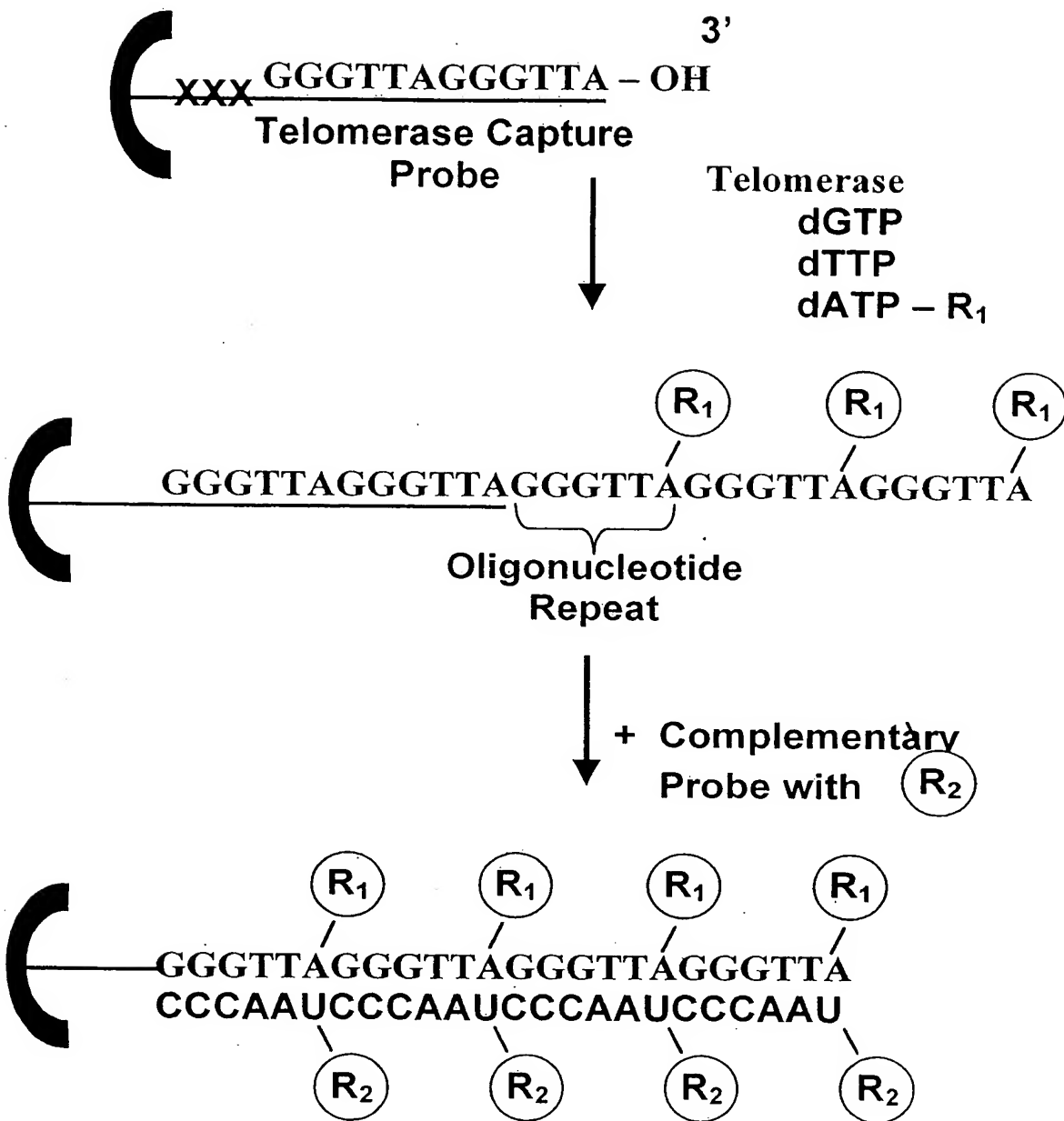


FIGURE 25

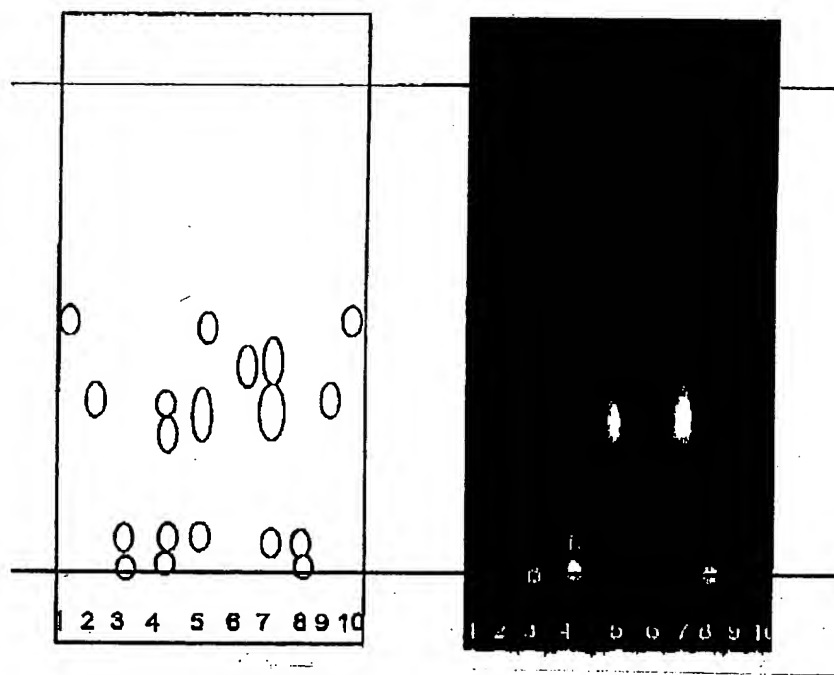


FIGURE 26

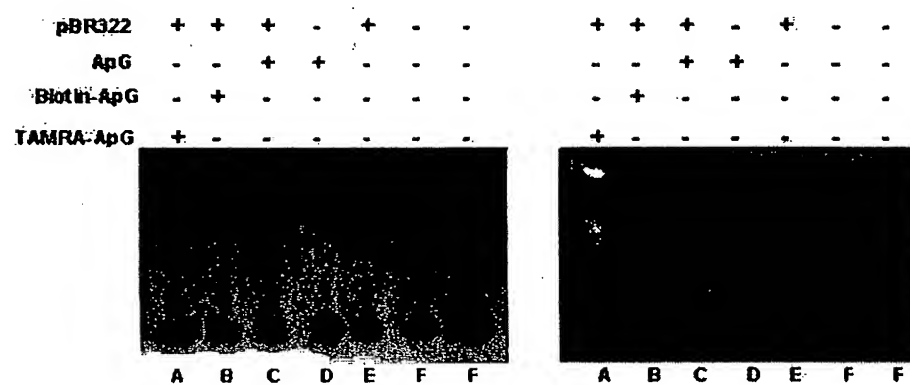


FIGURE 27

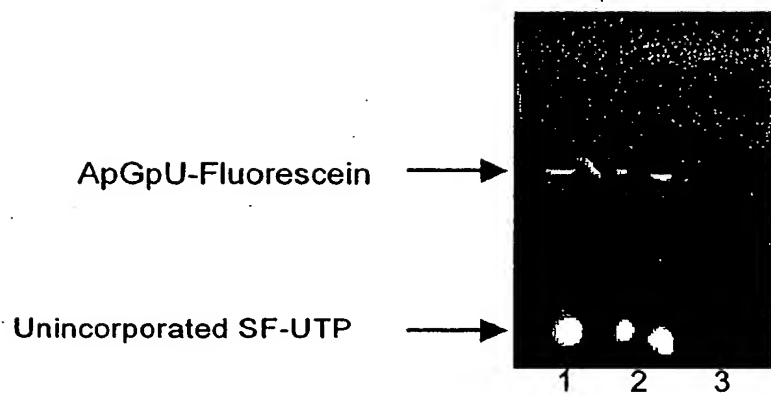


FIGURE 28

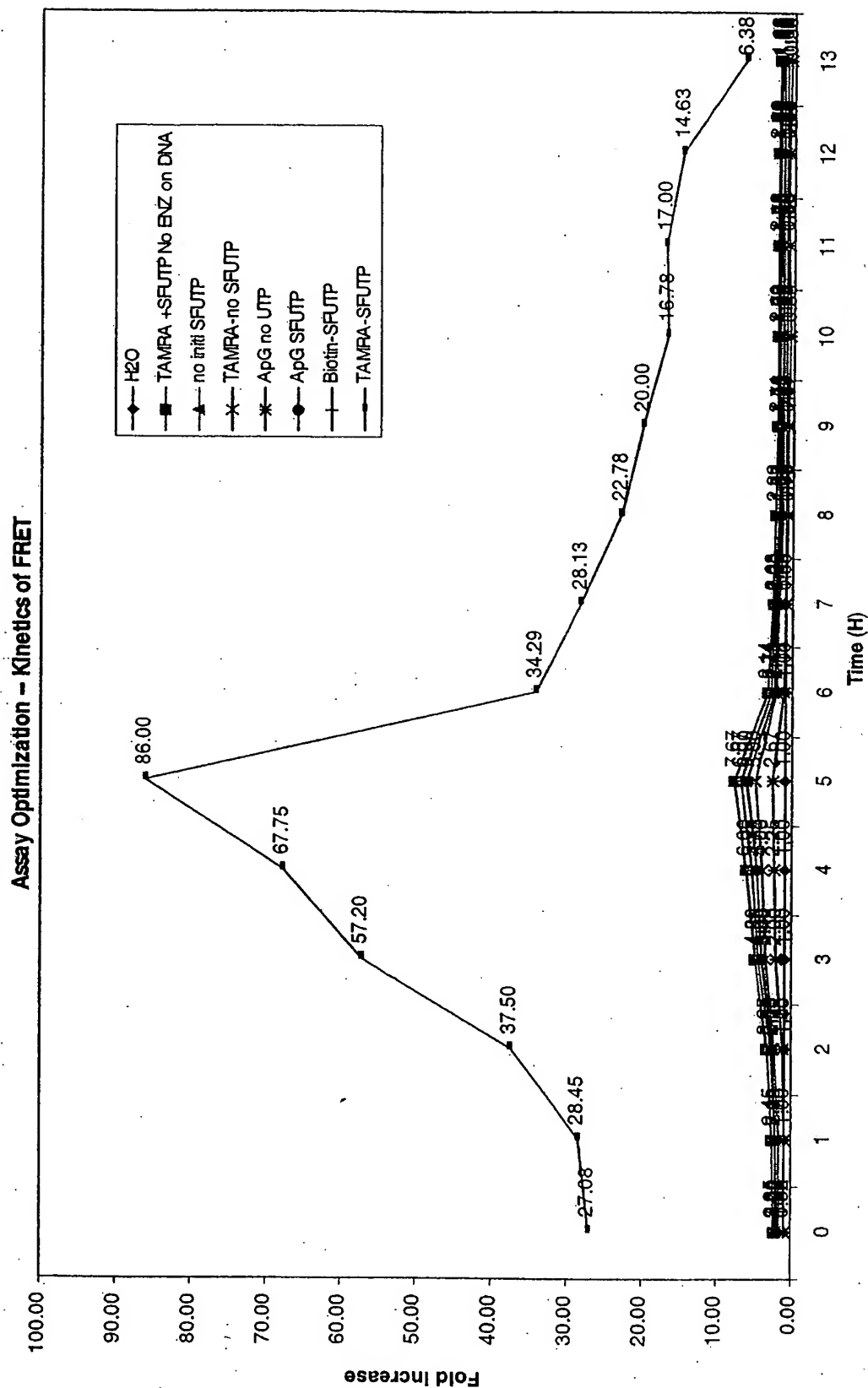


FIGURE 29A

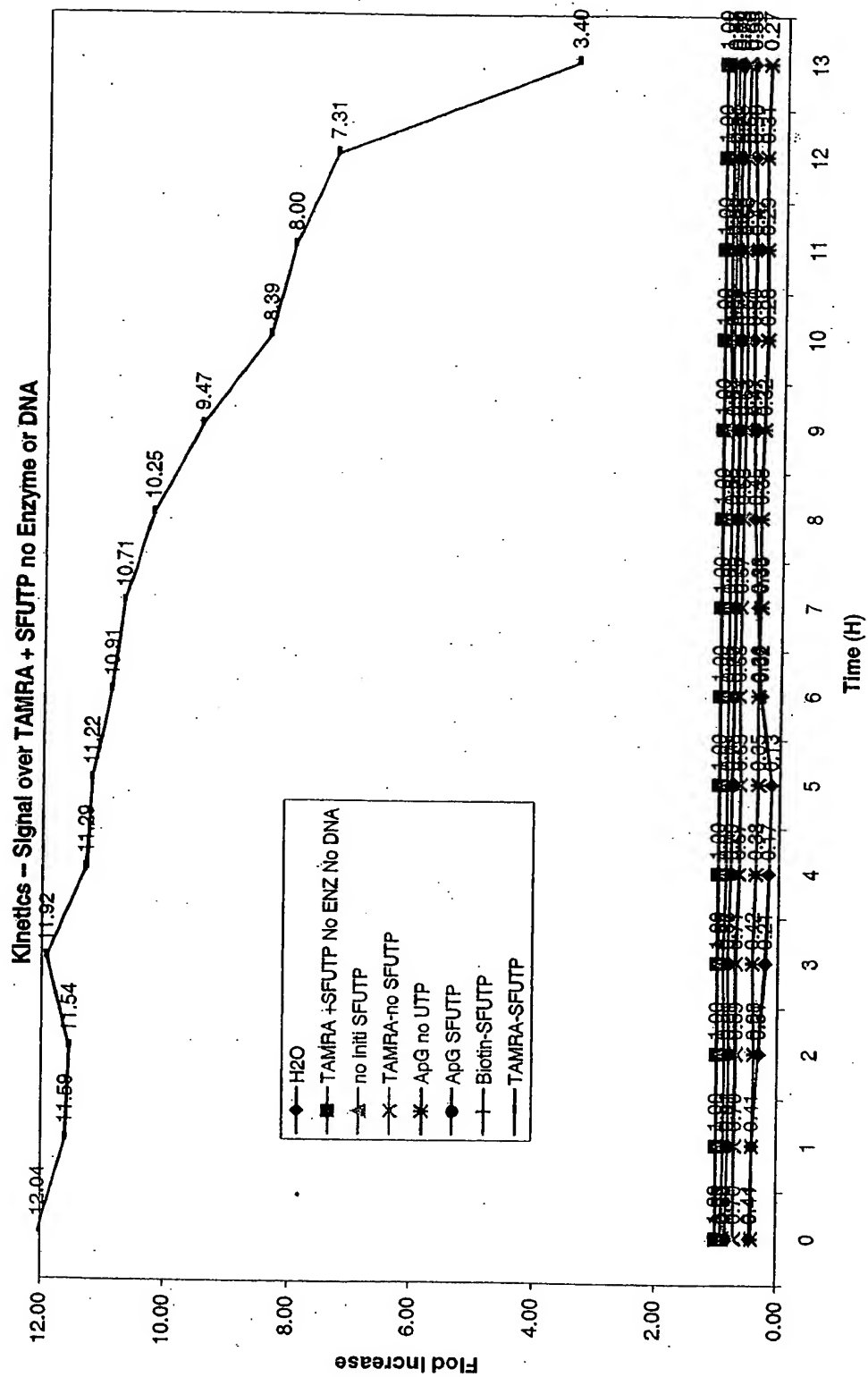


FIGURE 29B

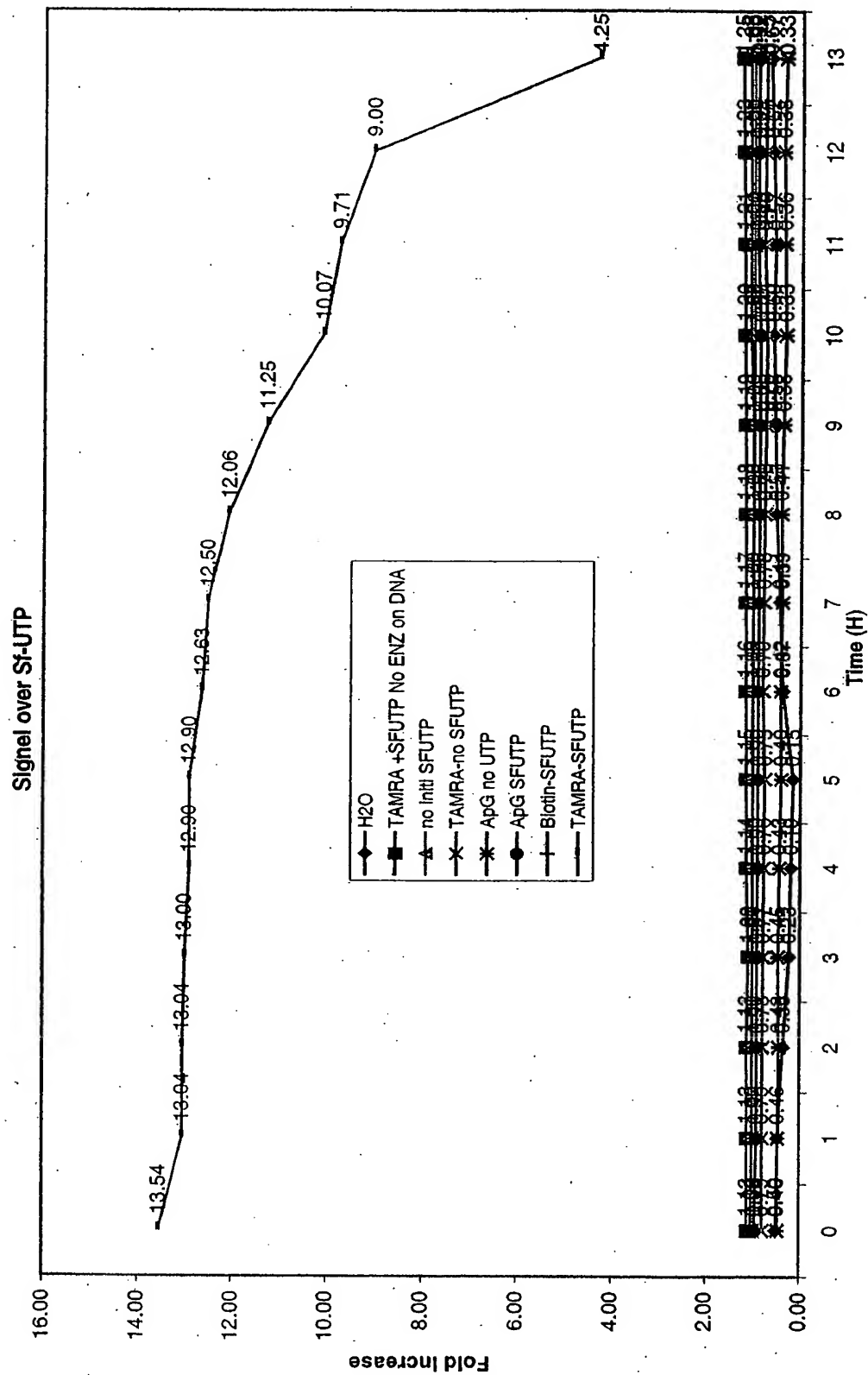


FIGURE 29C

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 CTGACCTCAGGTGATCTGCCCCGCTCGGCTTCCCAAAGTGCTGGGATTACAGGTGTGAGCCACCGCGTCTCT
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Figure 30

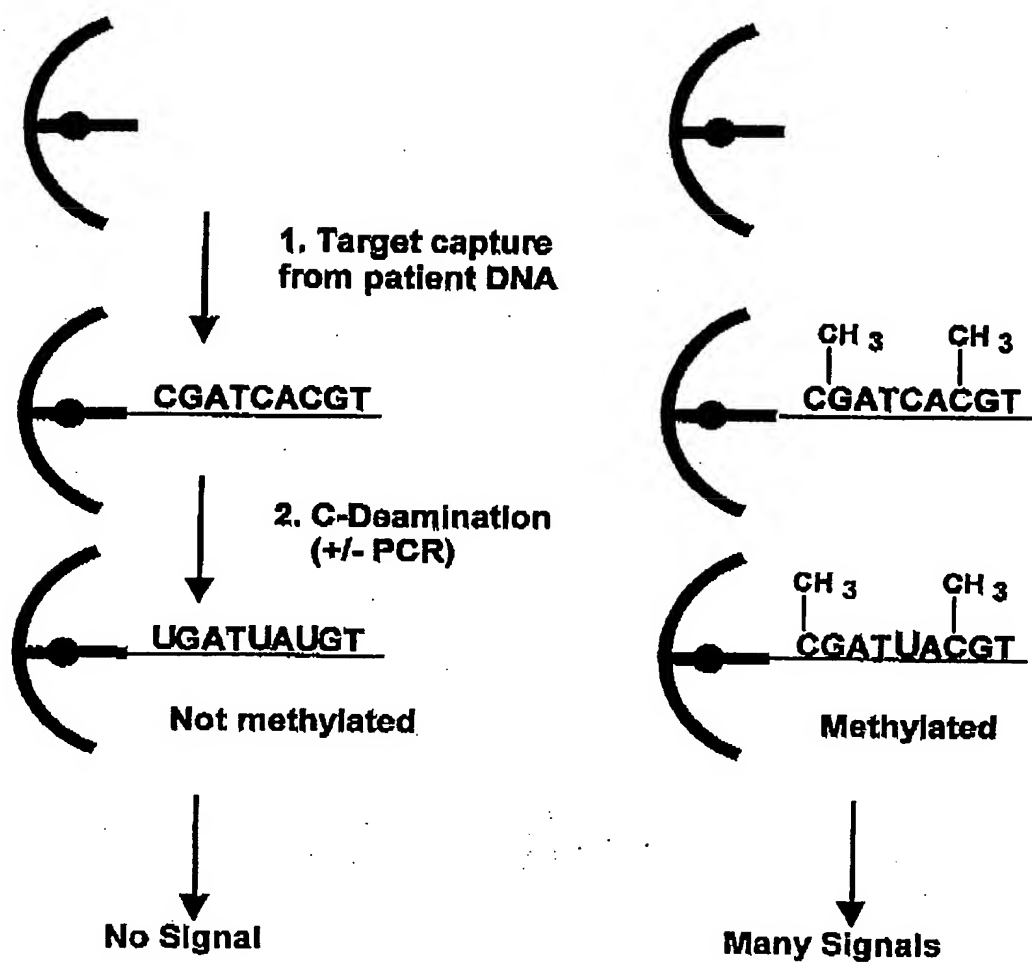


FIGURE 31